

Debbie Mans, Executive Director of NY/NJ Baykeeper

**1039** (boat captain)

**1040**

Starts w/ ambi of boat motor

Debbie introduces herself

:55 - "We're headed up western Raritan Bay right now out of Keyport, up into the Arthur Kill, which really is part of a very vibrant port economy. A lot of barge traffic and a lot of industry including a lot of refineries that provide products for the rest of the region. And what happened here was that the storm surge came and funneled into these waters, and we saw significant damage all along this coast including the overtopping of refinery areas and fuel storage areas. And we had several oil spills in the area."

1:40 - "As you further away from the Raritan Bay, it's very much residential communities, working class. A lot of rental units, especially in the bayshore area that are still recovering and still trying to get people back in their homes. And then you move into the Arthur Kill, and all of a sudden you're next to large tank farms, lots of pipelines, lots of tankers, lots of barges and tugs, bringing in fuel and other products into the area. And then you get up into the container terminals, the large port facilities."

2:24 - "As you get closer to the port, you have a lot of industrial facilities, warehouse facilities. And these include chemical manufacturing. They produce fragrances and fat rendering facilities for all your beauty products. And then we have one of the largest wastewater treatment plants on the east coast right at the mouth of the Passaic River."

**2:28 - "This is how this area grew. The waterway was the primary mode of transportation for these facilities, and that's where they are. Right on the water's edge. And what we're not seeing is a comprehensive look at how you make sure -- cause we will have another storm, and we will have sea level rise -- that these industries are making themselves flood proof and that when a storm comes, that the water doesn't run into their facility and potentially run through into the communities like what happened during Hurricane Sandy."**

3:45 "There's not a lot of information available to the public about what is happening, and two -- what we're seeing is individual facilities are deciding what makes sense for their individual facility. And we'll see pockets of walls going up. Especially around the wastewater treatment plants or the pumping stations. All those were devastated during Sandy. But we're not seeing a strategic look at how you protect this coast, how you protect the communities along this industrial coast, and how you protect these economies."

4:29 - "It does appear to be left up to each facility to determine what they need to do. And in most cases, it's going to be to build a wall around their facilities, which -- one -- we need to understand how that impacts neighboring facilities. So if the water's not going to go into theirs, where's it going to go? And then it could further reduce public access to the waterfront in an area that already has very little public access."

5:17 - "I don't disagree that these facilities are going to know how they were impacted and do the assessment about what makes sense to them. But you do need some leadership at the state and regional level saying, OK. Let's do best practices to make sure chemicals and other products are not stored in a

way that they come in contact with water. Let's figure out if we can do a regional approach to looking at flood resiliency. And there is an initiative by the Army Corps to look at the lower portion of the Passaic River. And they're dusting off a fairly old plan that involves a lot of berms and walls around some of the Passaic River. And the community needs to have input on that and needs to understand what's being proposed because I can tell you the last thing people want is to clean up these waterways and then build a giant wall around them. That's just not something that's feasible in the communities."

6:43 - "Specifically around the fuel facilities that store and refine, we did see the oil spills. So the water was impacted. The wildlife was impacted. And then that was out back into the waterways. The water also picked up oil and moved into the communities. And oiled cemeteries. Oiled some neighboring properties. And so it is a big health and public safety risk that they need to take care of."

7:26 - (Raritan Bay Slag)

8:53 - boat motor ambi

9:20 - "It's a low-lying area anyway. These were all wetlands that they built on top of. And so they're very low. And they're at the mouths of other creeks that are coming to the Arthur Kill. So in Hurricane Sandy, it was a surge coming in, but in Irene, it was a rain event that was coming down the rivers. So you can't imagine what would happen if both of those happened at once. It would come from both ends on these sites."

10:30 - "Wastewater treatment plants are built in low-lying areas. And a lot of their equipment in underground because it's gravity-fed. So you can't pick up a wastewater treatment plant and elevate it or move it to another spot. You can't move these refineries. There's a lot of piping systems and they are right down to the water's edge to pick up the product from the barges. And so we have not been seeing -- at least physically -- any change in the way some of these facilities are doing business. Certainly not in response to Hurricane Sandy and certainly not in response to sea level rise, which is coming."

11:20 - "A lot of this infrastructure is right on the water's edge, and it's critical. It's critical to the region. I mean we're not just talking transportation. The fuel system, the food systems, the water treatment systems. They're all vulnerable to sea level rise and future storm events. And you're right. One -- we have no space to move them to. Two -- people probably don't want them coming into their neighborhoods. And three -- there's just not a lot of real estate on those facilities, especially at the water's edge to do a lot of resiliency or reinforcement. So it's a real challenge, and that's what we're saying we need to think about this now. You need to be engaging the public in these discussions that are happening around these facilities that impact their communities."

12:22 - "There will need to be some hard infrastructure, but one of the thing that we're missing quite a bit in NJ, especially in the port areas is making the natural systems more resilient. So we look right behind us at Staten Island on the South Shore, and they're moving forward with a living breakwater, using a natural reef system to help reduce the energy and velocity around these storm surges. That's going to have a benefit to the habitat, a benefit to the community that's right there. But we can't that in NJ. One -- that was not one of the ones that was promoted by the state. And two -- there's a ban on the use of shellfish for restoration or research or education purposes in most of these northern NJ waters. So we're missing out on a whole ability to bring money into the state, bring jobs and bring innovative resiliency measures into the state through the use of natural systems."

13:34 - "What we've been working on in some of the cities in northern NJ -- Paterson, Newark, Perth Amboy, and Jersey City -- is what's called green infrastructure. And that's simply putting in a rain garden, putting in more trees. Taking out concrete and putting in green systems. And we're not saying that's going

to stop an 8 foot surge, but it will help address localized flooding that is occurring more and more. It will help address water quality cause it will reduce combines sewer outfalls, and it will help the communities by greening them, reducing the heat island impact, all sorts of things. So there are little things you can be doing in the neighborhoods to help make them more resilient physically and bring in the green.”

(14:37 - wetlands restoration in the Meadowlands)

14:53 - “Restoring our wetlands, green infrastructure... All these things could be done at a large scale at industrial facilities. And some of them are trying to do that. But it’s not a mandate. And it’s not necessarily... You know, I think we’re struggling at the state level to try to prioritize it within the different solutions that they’re looking at.”

(16:05 - points out Raritan Bay slag)

(21:57 - boat motor ambi)

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## 1041

:27 (describes that we’re going under the Outerbridge Crossing)

1:01 - “So you can see the pipelines are right next to the waterways because that’s the easiest way to get it off of the barges and just pump it right into the tanks.”

1:16 - boat motor ambi

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## 1042

:06 - “I think this is the Motiva facility. So you can see each one of these storage tanks, the white storage tanks has a berm around it or a wall. It’s not as high as the storage tank, but it is supposed to be able to held any product that’s in the tank plus a little freeboard of water that might come in. But what happened during the storm was the surge came up and overtop those berms and shifted the storage containers. And some of the facilities were able in advance of the storm to pump material from the closest storage facilities to the water to other, less vulnerable storage facilities inland. But that didn’t happen for all of these. So that’s why we got the oil spills. Cause it came up, kind of ruptured the tanks and then overflowed the berm. **So this looks exactly like it did before Hurricane Sandy. And you’ve got to wonder, how can we make this more resilient and to make it less vulnerable to all sorts of storm activity and sea level rise.**”

1:22 - “And we’ll go up past a point where the tanks are just gone. They decided not to rebuild in that area. The company’s not as active.”

1:36 - “I believe this is the Motiva site. We have here at the Motiva site. Our best information is 378,000 gallons of diesel was released due to a spill during Hurricane Sandy. A majority of that escaped the confinement systems that they have in place around the tanks. And they were able to recover a portion of it. I mean the thing with the oil spills is the most important time is immediately after the spill to recover it because if you don’t, it’s gone. We’re in a tidal system, and a lot of it flowed, causing a sheen on the waterway. And once it’s on the water, it’s very hard to recover. So your best bet is to have good safety around the facility itself. And then to capture or boom it before it can enter the waterway.”

2:43 - boat motor ambi

1043

**“Some of the oil that was released went up into Smith’s Creek, which is a little creek here in Woodbridge. And it made it all the way up to the headwaters. Where unfortunately there had been a wetlands restoration by the federal government years before. And some of those wetlands did get oiled again. And along Smith’s Creek is a lot of little marinas, and those all had to get rebuilt. And I think at least one had not come back.”**

(Private companies contracted with private companies to do the cleanup)

3:44 - “The wastewater treatment plant in Newark went down. And all the communities around there were releasing raw sewage into the water. Millions of gallons a day. And also NYC. So there was a lot of raw sewage in the water, and people should not have been coming into contact with it. And there was a delay in sending out those notifications to people and posting warnings at the different access points.”

(boat ambi at end)

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1046

:45 - *“After Hurricane Sandy, 2 regional sewer plants were heavily impacted. The Middlesex Co. Utilities Authority in Sayreville and then the Passaic Valley Sewerage Commission in Newark. And those basically serve all of northern NJ and much of central NJ. And they were shut down. The pump stations for the Sayreville plant were not operating. So that meant that anything coming out of the houses, industry, going down the pipes was going right into the Raritan River untreated. The same with the Passaic Valley. That’s a much larger facility permitting for just over 300 million gallons a day of wastewater. That was completely underwater after Hurricane Sandy. They lost everything including the bogs that actually work to break down the waste that comes in. So millions and millions of gallons of raw sewage were coming out into the harbor area for many, many days after Hurricane Sandy.”*

2:04 - *“So there’s 2 things that happen in our wastewater treatment plants. On a normal, they’re putting in the water, they’re treating it, and it’s going out. When we get, let’s say a half inch of rain anytime it’s overloading the system because it is a combined sewer system. So your sanitary pipe out of your home is combined with the storm drain pipe in the road. And the water goes in one pipe. It overloads the system and it’s released into the waterway without treatment. So that happens all the time in the NYC area. What happened with Hurricane Sandy is the storm surge was 8-10 feet into the facility as it was powering down, and most of that facility, the electronics, the pipes, are underground because that’s the way water treatment plants were built. And it completely wiped out the plant. It was offline for many, many days. So on an annual basis, there’s always raw sewage discharges. But after Hurricane Sandy, it was off the charts, both in NJ and in NYC.”*

(talks more about CSOs)

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1048

Response to state saying homeland security prevents them from releasing public information about types and locations of industrial facilities

1:09 - “I mean I understand the homeland security risk. But if we had confidence that it was all being taken care of and that the best practices were happening at these facilities with respect to storage and preparing for hazardous situations like sea level rise and storms, then maybe we’d have more comfort in

saying, 'You can't look here.' But when there's no transparency, and there's on top of it no real communication about what they're doing to improve conditions, that's when people start asking a lot more questions."

(My Q: isn't it amazing that state regulatory authorities don't have a good handle on the potential hazards presented by each facility)

2:00 - "It is surprising and concerning. And **you want to feel that people are learning a lesson and that we're as a state strategically trying to plan for climate change and these storms. And we're not. At least as far as the public can see.**"

2:36 - "I'm not even saying you need more regulations. You just simply need to do long term planning for not just the public health and safety related to the running of these facilities but the long term economic health of the port and all the industries that rely on the facilities along the waterfront and the communities that rely on these critical infrastructure working for the long term. And that's a strategic planning function that the state should be leading, and they're not."